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| --- | --- |
| **Project Case** | Description: LogoBINUS-University |
| C |
| **Periode Berlaku** Semester Ganjil 2022/2023  ***Valid on*** *Odd Year 2022/2023* | **Software Laboratory Center**  **Assistant Recruitment 23-1** |

***Note:******Please focus on the main logic and main feature!***

*(Splash screen and design are not scored)*

## Soal

*Case*

**C Space Invader**

Space Invaders is a very simple game by modern standards, but it was a technological marvel in its time. Space Invaders was a worldwide success and paved the way for a generation of shooting games that became extremely popular.You as a developer asked to make a Space Invader with C Programming Languange.

* **Main menu**
* This menu contains of 5 menus, which are **New Game**, **Load Game**, **Setting, How to Play, and Exit.**
* **Prompt** userto **input chosen menu**. **Validate** the input must **between 1 and 5 inclusively**.



Figure 1. Home Page

1. If user choose **New Game** (**Menu 1**), then:
   * **Prompt** user to **input username**. **Validate** the data must more than **3 characters exclusively**
   * Validate the **username** must **not exists.**



Figure 2. Input Username

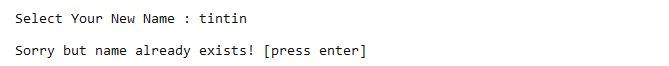


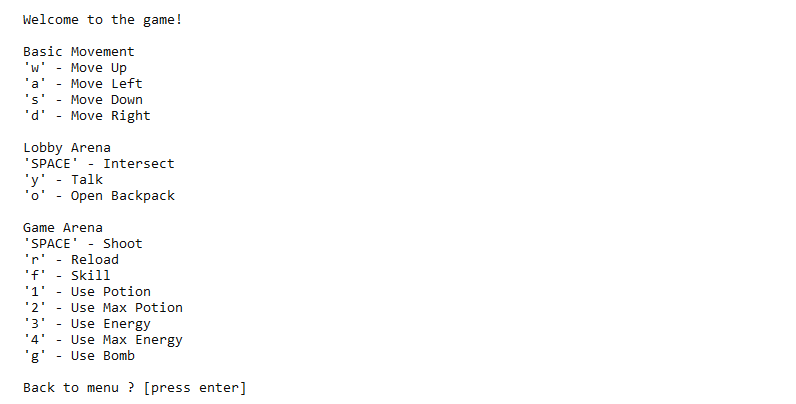
Figure 3. Username Validation

* + **Direct** user to **game page.**

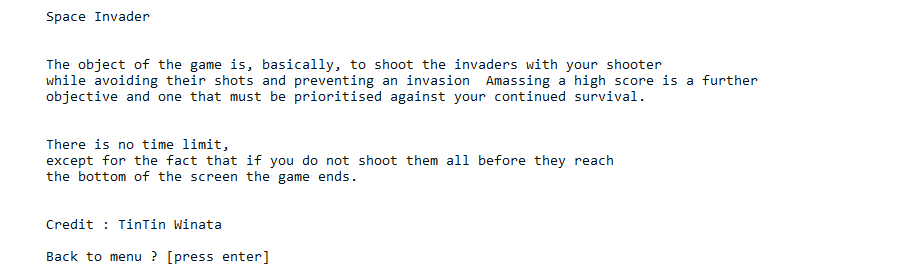
1. If user choose **Load Game** **(Menu 2)**, then:
   * **Show** all available player at **‘player.dat’**
   * **Prompt** user to **input chosen menu**. **Validate** the input must between **1 and total player + back inclusively.**
   * If load data **success, direct** user to **game page**.
   * If user choose **back, direct** to **main menu**.



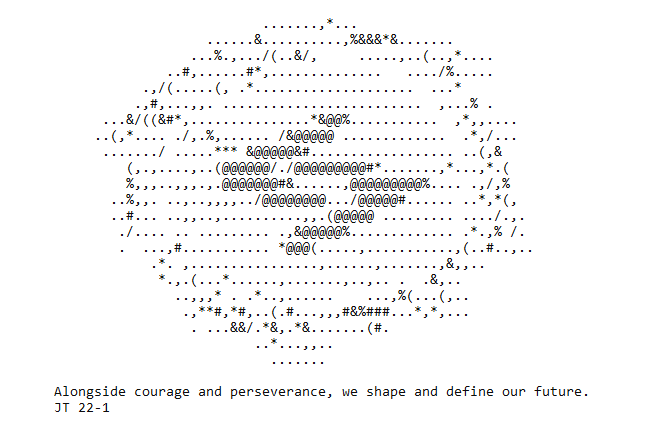
1. If user choose **Setting (Menu 3)**, then:
   * **Show** all available **input**.



1. If user choose **How to Play (Menu 4)**, then:
   * **Show** main objective of the game.



1. If user choose **Exit (Menu 5)**, then:
   * **Display** Logo and motto



* **Gameplay**
* **Lobby**
  + Spawn user at the **bottom of the Lobby**.
  + Display **lobby, user position,** and **user information**.
  + Print **NPC** with the given symbol.
  + If user stands the **middle of lobby map** (fountain), then :
    - Tell **user** can do **interact** by **typing ‘SPACE’ key.**
    - **User** can go to the **game arena**
* Below is some information of map symbols.

|  |  |
| --- | --- |
| Symbol | Meaning |
| | | Board |
| \ or / | Door |
| - | Closed Door |
| # or = | Wall |
| . | Pillar |
| P | Player |
| U | Upgrade Shop |
| I | Item Shop |
| W | Spaceship Station |

Table 1. Map Information

* Prompt user to input key W A S D (Case Insensitive) (Up, Left, Down, Right) to move

Please run the EXE file to see the sample program.